



AWARENESS ABOUT OVER-THE-COUNTER [OTC] MEDICATIONS FOR TOOTH PAIN AMONG GENERAL PUBLIC

Dr. P. S Gayathri	MDS, Reader, Department of Oral Medicine and Radiology, Thai Moogambigai Dental College and Hospital, Chennai.
Dr. Priya Ramani	MDS, Head of the Department, Department of Oral Medicine and Radiology, Thai Moogambigai Dental College and Hospital, Chennai.
Nivedha. V	Junior Resident, Thai Moogambigai Dental College and Hospital, Chennai.
Nithya. S	Junior Resident, Thai Moogambigai Dental College and Hospital, Chennai.
Nisha Kumari. K	Junior Resident, Thai Moogambigai Dental College and Hospital, Chennai.
Dr. Pazhanivel	Senior Lecturer

ABSTRACT

Background: To assess about the awareness of over-the-counter medication for tooth pain among people through a web-based questionnaire. So that this can be utilized for better understanding of public awareness about over the counter medication for tooth pain. **Materials&methods:** An online questionnaire-based survey was done to assess about the awareness of over-the-counter medication for tooth pain through Google forms. Sixteen questions were framed to assess the participants. Three house surgeons conducted the survey. Questions included multiple choice questions, close ended questions and answer in a word question. Statistical analysis was done to formulate the results. **Results:** 100 participants recorded their responses for this survey. All the participants were between age groups of 17-70 years [Mean age: 23.5]. About 75% of the participants were about OTC medications, 70% of them consuming them on pain. Paracetamol based medicines were drug of choice for dental pain in most of the population. 98% of the participants preferred to go to clinics when the pain did not subside despite taking medication contrary to 2% who preferred to change the medication on advice of a pharmacist. **Conclusion:** Based on the result of this survey, general public is quite aware about over the counter medication to treat tooth pain. Despite knowing its side effects few of them continue to consume these drugs on a longer run. Most of them visit clinics in the drug does not show any effect which is indeed a good sign. Hence more awareness regarding OTC medications for dental pain and their long-term side-effects among public will surely make an even bigger difference.

KEYWORDS : Dental pain; Over-the-counter medication; Self-medication; Web-based questionnaire

INTRODUCTION

Over-the-counter (OTC) medicines are drugs that can be sold directly to the general public without a prescription. OTC medicines are used for a wide range of illnesses and their symptoms including pain, coughs and colds, diarrhoea, constipation, acne, and others^[1]. People generally tend to buy them for immediate relief from pain and avoid visiting a doctor. Tooth pain is the most common reason among the people for which they often seek immediate relief and to avoid visiting a dentist, and take self-medication without a doctor's prescription. Ibuprofen and paracetamol are drugs which are openly available in pharmacies for people to buy. Few people also use clove oil for relief from tooth pain. Some OTC medicines have active ingredients with the potential for misuse at higher-than-recommended dosages. However, these over-the-counter medications have their own adverse effects if taken beyond limitations or on the longer run.

Majority of the public who aren't aware about over-the-counter medication and often tolerate pain till it aggravates beyond their control or any other symptom shows up. Ignored tooth pain can lead to severity in pain and can also lead to facial swelling, abscess and other complications. OTC medications must be taken only in case of emergency. Immediate appointment with a dental practitioner must be sought to treat the condition^[6].

This study was designed to assess the awareness among general public regarding over-the-counter medications for tooth pain.

MATERIALS AND METHODS

An 18-item questionnaire on OTC medication for tooth pain was prepared and the general public were chosen as participants. It consists of two parts, in which the first part consisted of demographic data and the next part included

multiple choice, close-ended questions and one word Question and Answer. The intention of this study is to assess the awareness of OTC medications for tooth pain among the participants. Consent was taken from every individual participant in the survey. To make sure privacy and confidentiality, individual results were not disclosed at any cause to the public. The questionnaire study was conducted among the general public through an online platform via Google form from October 2022 to November 2022. This study was approved by the Institutional ethical review board, Thai Moogambigai Dental College and Hospital, Chennai, Tamil Nadu, India.

Statistical Analysis

All the collected data were entered in Microsoft Excel 2007 and SPSS software for statistical analysis. Standard deviation and results on categorical measurements were presented in number (n) and percentage (%). Level of significance was fixed at $P = 0.05$ and any values ≤ 0.05 were considered to be statistically significant. The validity of study parameters on a categorical scale was determined using the Chi-square analysis. p-value was determined from Chi-square analysis.

RESULTS

100 people participated in the survey 77 of them were females and rest 23 were males. Age group was between 17-70 years. Average age of a participant was 23.5.

Question Wise Analysis

A couple of queries regarding consumption and knowledge whether people were aware of OTC medications or consumed them were analysed. Similar responses with more than 70% being on the higher scale. Succeeding question asked the public one particular drug they consumed to relieve pain 29% replied as nil, while 62% wrote paracetamol and its derived medications, while remaining 9% wrote ibuprofen, and other

NSAIDS. It was analysed that most people take OTC medications for fever [54%] followed by headache [25%] and tooth ache [18%] remaining 2% for gastric problems. It was revealed that 70% of the general public was aware of the long-term side effects of OTC medications, and the query regarding the duration of OTC intake showed that 52% of the participants took medication only for a day, 38% for 3 days, 9% for a week and only 1% for many weeks. Regarding the long-term effects of OTC medications, it was analysed that 34% believed renal damage was a long-term effect followed by 33% gastric problems, 26% liver damage and 7% increased risk of heart attack.

Last section of questions assessed general public's knowledge and attitude towards dentist, dental treatment and self-medication for dental pain. It was seen that most of them visit dentist only once a year and believed cavities were the major cause of tooth pain [68%] followed by wisdom tooth related pain [16%] respectively. In case of severe tooth pain, it was revealed that 86% preferred to visit the dentist, 75% did not use any home remedies to cure tooth pain, while 25% used clove oil and salt water gargle to treat tooth pain. 57% knew that avoiding hot and cold food, elevating head while sleeping and rinsing with salt water were methods to relieve tooth pain. 80% believed clove oil relieves tooth pain, 76% of them thought paracetamol and its combination drugs cured pain, while remaining 24% believed ibuprofen cured tooth pain instantly. 82% knew that ibuprofen is contraindicated in asthma. 98% visited dental clinics when OTC medications did not work while 2% asked the pharmacist to give another medication, thankfully nobody chose to increase the dose of the medication. Not all the results were statistically significant.

DISCUSSION

The purpose of this study was to assess how much the general public is aware about over-the-counter medication for tooth pain. From the results it was evident that more than half of the sample was aware about OTC medications for tooth pain and also its long-term consequences. A study by *Shivani Pandey et al.* revealed that 63% were aware of over-the-counter drugs for pain which was quite similar to our study [70%]⁷. Our study showed that 70% were aware of the side effects of over-the-counter drugs which was similar with the study done by *VJ, Oviya et al.*¹⁰ It was quite pleasing to note most of people chose to visit the dentist if OTC medicines does not subside their pain. However, people were quite reluctant to visit the dentist or dental checkup just once a year, which was also noted in the global health survey 2021⁹. Most people used over-the counter medication for fever was analysed by our study [54%] which was identical with the study by *VJ, Oviya et al.* [55%]¹⁰ and lower when compared to the study by *Kumar N, Kanchan T, Unnikrishnan B et al* [75%]¹¹. People had different perception about the cause of tooth pain, most of them attributing it to caries. Clove oil has properties of relieving tooth pain⁵, and a huge mass of people were aware but only few people choose to use clove oil to relieve pain. But still it has side effects of chemical burns, ulceration etc.. Paracetamol was a house hold name was quite evident from this survey. The awareness of contraindication of ibuprofen in asthma was extremely pleasing to observe.

The pandemic had played a huge role in people taking self-medication of over-the-counter medicines. Sales of dolo-650 had seen a great jump during this period. With the dental clinics only performing emergency procedures and travel restrictions. General public were easily accessible only to OTC medications and had no issues buying them.

People visited the dentist when pain did not subside despite taking medicines was observed very well in this study.

CONCLUSION

The results of the study were revealing that the general public

has awareness about the over-the counter medication to treat dental pain. Even though the general public has knowledge about the health hazards of over-the counter medicines, they are still hesitant to visit the dentist unless the pain intensifies. Hence, it is concluded that over the counter(OTC) medication relieves tooth pain but, further management should be carried out before the disease becomes severe. People must visit the dentist to completely get rid of the pain and get the required treatment done. People should be educated that purchase and consumption of over-the counter medication is illegal and against the government law.

Conflict Of Interest

There were no conflicts of interest

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